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REMARKS

This communication is considered fully responsive to the Office action mailed September 20, 2004. Claims 1-16 were examined and stand rejected. Claims 1, 10 and 12 have been amended. New claims 17-26 have been added. No claims have been canceled. Claims 1-26 are now presented for examination. Reconsideration and reexamination are respectfully requested.

Summary of Examiner Interview

The Undersigned and Attorney Ronald C. Gorsché participated in a telephonic interview with Examiner Harrison on Friday, December 10, 2004 at 1:00pm MST. The parties discussed Hogan's failure to disclose the lack of grouping of at least one connected-superset node and at least one isolated-superset node into a third layer of a multi-layer representation. The parties also discussed the general teachings of the Hogan reference and particularly the lack of Hogan's teaching of a multi-layer representation of communicatively-coupled nodes in a network topology.

Claim Rejections – 35 U.S.C. §103

Claims 1-4, 7, 10-13, 14-16 stand rejected under 35 U.S.C. §103(a) as being purportedly unpatentable over U.S. Patent No. 5,414,809 to Hogan et al. ("Hogan"). The Applicant traverses the rejection.

Generally, Hogan discloses a computerized method of generating a display of a graph, which includes graph objects and object attributes. Specifically, Hogan teaches a graphical interface that displays a graph of data and permits a user to modify the data by directly manipulating the graph (e.g. filtering, viewing, and editing). The graph can be represented by different user selected view styles, such as Gantt charts, tree charts and bar charts. A graphics engine generates the user selected view style to graphically illustrate a set of data extracted from a database system based upon specific user generated criteria. (Hogan, col. 3, lines 47-49). The Office has pointed to features of an organization chart displayed in a Tree View Style as relevant to its rejection (Hogan, col. 54-56 and 59) The Applicant also points out that Hogan also teaches a Network View Style (Hogan, cols. 61-71), which is applicable to only to non-hierarchical data (e.g., airline routing data). However, in both of these embodiments as well as in other

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embodiments in Hogan, there is no teaching of a grouping of nodes of a network topology into a multi-level representation.

Claim 1 recites various operations performed in relation to "nodes within a network topology". As recited, the nodes of the network topology are grouped into layers of a multi-layer representation. Although the term "network topology" is not recited in the body of the claim, the term is used in the preamble of claim 1 to describe "nodes", which are recited frequently in the body of the claim. Therefore, patentability cannot be measured against any kind of "node" broadly, but instead against "nodes within a network topology". See In re Stencel, 828 F.2d 751, 754, 4 USPQ2d 1071, 1073 (Fed. Cir. 1987).

Accordingly, in the context of "nodes with a network topology", Hogan fails to disclose or suggest all of the limitations recited in claim 1. The hierarchical organization chart embodiment in Hogan is inapplicable because it fails to disclose the display of nodes in a network topology. Furthermore, the Network View Style of Hogan is expressly limited to complex, non-hierarchical representations. Hogan, col. 61, lines 62-63. Therefore, neither embodiment of Hogan, by itself, teaches all of the limitations recited in claim 1, and the two embodiments cannot be combined because the Tree View Style is necessarily hierarchical and the Network View Style is expressly non-hierarchical. A combination of the two embodiments of Hogan is inappropriate.

In addition, all embodiments disclosed in Hogan, whether taken singly or in combination, fail to disclose or suggest the recited limitation in claim 1 of grouping the group nodes of the second layer into a third layer having at least one connected-superset node and at least one isolated-superset node. As recited in claim 1, as amended to clarify the term "connected", a connected-superset node contains group nodes with nodes communicatively connected to each other, and an isolated-superset node contains group nodes having nodes not communicatively connected to each other or to the nodes of the connected-superset node. See the Isolated Devices grouped in node 508b in FIG. 5B as examples of isolated nodes. Hogan fails to disclose or suggest a grouping of such connected-superset nodes and isolated-superset nodes into a third layer of a multi-layer representation.

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The Office has admitted that isolated-superset nodes are not taught in Hogan. However, the Office argues that it would have been obvious to achieve an isolated-superset node by adding connections to the "isolated root nodes" of the Tree View Style. The Applicant respectfully asserts that adding connections to an isolated root node of an organization chart does not yield an isolated-superset node or resulting in group of an isolated-superset node. Instead, it merely yields a connected root node.

Furthermore, an isolated-superset node contains group nodes and is itself grouped with a connected-superset node in a third layer of a multi-layer representation. The isolated root nodes of Hogan do not have subtrees – they are described in contrast to trees having their own subtree hierarchies. Therefore, Hogan merely teaches isolated root nodes that contain no group nodes (and in fact contain no nodes at all) and that are not grouped with any other node, particularly a connected-superset node. As a matter of completeness, the Applicant submits that the Network View Style also fails to disclose or suggest these features. The Office has therefore proposed a combination that is neither supported in nor motivated by the cited references. Accordingly, the Office has not met its burden to present a prima facie case of obviousness based on the Hogan reference.

In addition, the Office has admitted that Hogan does not teach an isolated-superset node, and the Applicant has shown that "isolated root node" do not have subtrees in Hogan. Therefore, the Applicant submits that Hogan also does not disclose or suggest an isolated-superset node that is selectively expandable to display group nodes of the second layer, where such group nodes have nodes that are not communicatively connected to each other or to the nodes of the connected-superset node.

In summary, Hogan fails to disclose or suggest the recited method of claim 1 as applied to the nodes within a network topology. Furthermore, Hogan completely fails to disclose or suggest the groupings of nodes recited in claim 1, particularly those of the third layer. And Hogan fails to disclose or suggest a selectively expandable isolated-superset node. Therefore, Hogan fails to anticipate or make obvious the method of claim 1. Allowance of claim 1 is respectfully requested.

Claims 10 and 12 recited claim elements similar to those discussed with regard to claim 1. Therefore, claims 10 and 12 are believed allowable for at least the same reasons as claim 1. Allowance of claims 10 and 12 is respectfully requested.

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Claims 2-4 and 7 depend from claim 1, which is believed allowable. Therefore, claims 2-4 and 7 are believed allowable for at least the same reasons as claim 1. Allowance of claims 2-4 and 7is respectfully requested.

Claim 11 depends from claim 10, which is believed allowable. Therefore, claim 11 is believed allowable for at least the same reasons as claim 10. Allowance of claim 11 is respectfully requested.

Claims 13-16 depend from claim 12, which is believed allowable. Therefore, claims 12-16 are believed allowable for at least the same reasons as claim 12. Allowance of claims 12-16 is respectfully requested.

Claims 5-6 and 8-9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hogan in view of U.S. Patent No. 6,437,804 to Ibe et al. ("Ibe"). The rejections are traversed based on the following remarks.

Claims 5-6 and 8-9 depend from claim 1 and are believed allowable for at least the same reasons as claim 1. Additionally, claim 5 calls for the group nodes in the connected-superset node to include switch groups and host groups. Hogan does not disclose switch groups and host groups. Ibe is cited at Figure 1 and column 5, lines 30-35 for teaching this limitation, but at this point and elsewhere, Ibe is specifically directed to automatically partitioning a graph. Ibe does not teach grouping into switch groups or host groups or displaying these groupings but instead merely mentions that switches, routers, hubs, and the like may be in a network.

Claim 6 depends from claim 5 and is allowable for at least the same reasons as claim 5.

Claim 8 calls for the isolated-superset node to include unmapped hubs and isolated switches. As stated previously, both Hogan and Ibe fail to disclose or suggest isolated-superset nodes, specifically, unmapped hubs and isolated switches. No reference is provided in the Office Action that discloses or suggests the recited features of claim 8.

Claim 9 is allowable for at least the same reasons as claim 8.

For these additional reasons, allowance of claims 5-6 and 8-9 is requested.

New Claims

The Applicant submits claims 17-26 for examination. Claims 17-23 specifically claim the computer program product aspect of the invention. In particular, independent

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claim 17 has added "discovering the network topology to identify nodes and interconnections, wherein each node represents a component in the network topology and each interconnection represents a communicative coupling between at least two components in the network topology, and wherein at least one component is not communicatively coupled to any other component in the network topology." This feature is not disclosed or suggested in the cited references.

Claims 24, 25 and 26 incorporate similar language and depend from independent claims 1, 10 and 12 respectively. Claims 24-26 are therefore allowable because they are dependent upon an allowable base claim for the reasons stated above.

Claims 17-26 are believed allowable over the cited references, and particularly over Hogan, which only discloses retrieving data items from a database and displaying the data in a particular view style based upon record fields selected by a user.

Conclusion

Based on the amendments and remarks herein, the Applicant respectfully requests prompt issuance of a notice of allowance for claims 1-26 in this matter.

Respectfully Submitted,

Dated: December 17, 2004 By: _____

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